Use and Occupancy Classification: 310.1 Residential Group R-2 (Apartments) 311.2 Storage S-1 420.2 Fire Partitions Separating Dwelling Units (709) 420.3 Floor Assemblies Separating Dwelling Units (712) R-2 VA 7.000sf 3 stories 50' tall S-1 VA 14.000sf 3 stories 50' tall 504.2 Where a building is equipped throughout with an approved automatic sprinkler system, the maximum building height is increased by 20 feet, and the maximum number of stories is increased by one. 508.4 S-1 and R occupancies shall be separated by 2-HR when sprinkled w/ NFPA 13R Type VA - No fire-resistance rating requirements for building elements Primary Structural Frame 1hr Exterior Bearing walls Interior Bearing walls Nonbearing Exterior See table 602 Nonbearing Interior 0hr Floor Construction Roof Construction 5'≤X<10' VA 1-hr exterior wall SW & NE building side Separation distance (rated from both sides)  $10^{\circ} \le X < 30^{\circ}$  VA 1-hr (inside only) X≥30 VA No rating required 704.2 Columns in basement shall be individually wrapped to provide 1hr rating 704.3 Dropped LVLs in basement shall be individually wrapped to provide 1hr rating 704.4 Secondary member in ceiling and walls may be protected as part of ceiling and wall assemblies in wood frame construction 705.2.2 Projections (including balconies) may be of any material 705.5 When exterior walls are required to be rated: X<10' Rated for exposure from both sides X>10' Rated from inside 705.8 Exterior wall openings limited by table 705.8 (see table on elevation sheets) 705.11.4Parapet not required on any exterior walls 707.3.1 Fire Barrier required for shaft enclosure 707.5 Fire barriers: From TOP of floor to bottom of decking above (cont. thru concealed) 707.5.1 Fire Barrier supporting construction shall have same rating 708.1 Shaft enclosures shall be constructed of fire barriers and horizontal assemblies. 708.2 Shaft enclosure is required stair 708.4 Shaft Enclosure: 2 hour when connecting four or more stories 709.1 Fire partitions required to separate dwelling units 709.3 Fire partitions shall be not less than 1-hr 709.4 Fire partition continuity: from TOP of floor to bottom of decking above or to bottom of ceiling assembly (with fireblocking or draftstopping) 712.3 Horizontal Assembly = Dwelling unit and sleeping unit separation in buildings of Type VA construction shall have a fire-resistance rating of not less than 1 hour in buildings equipped with an automatic sprinkler system. 712.4 Supporting construction of horz. assembly between units is required to be rated in VA All Rated vertical and horizontal assemblies shall be complete assemblies in that any penetrations shall be treated as in accordance with this section. All Rated vertical and horizontal assemblies shall be complete assemblies in that any joints shall be treated as in accordance with this section. All Rated vertical and horizontal assemblies shall be complete assemblies in that any openings shall be treated as in accordance with this section. 715.4 Doors in 2-hour stair shaft shall have a rating of 1-1/2 hour All Rated vertical and horizontal assemblies shall be complete assemblies in that any ducts and air transfers shall be treated as in accordance with this section. 716.6.2 Ducts and air transfer openings penetrating a rated ceiling membrane must be installed with a listed ceiling radiation damper Fire blocking and draft-stopping shall be installed in concealed spaces in accordance with this section. 803.9 R-2: Exit enclosures, corridors, rooms and enclosed spaces required to have Class C S-1: Exit enclosures, corridors, rooms and enclosed spaces required to have Class C 901.6.1 Automatic sprinkler system shall be monitored by a supervising station (NFPA 72) 901.6.2 Fire alarm system shall be monitored by a supervising station 903.2.8 Sprinkler System is required for Group R 903.3.1.2 NFPA 13R is permitted up to and including 4 stories 905.3.1 Class III standpipe system shall be installed 906.1 Fire extinguisher REQUIRED 907.2.9.1 Manual pull station fire alarm system is required as building is four stories. 907.2.11.2 Interconnected Smoke Alarms Required: Outside each sleeping area, in each sleeping room and in each story within a dwelling unit

IBC - Detail Code Review

**IECC** 1003.2 Min egress ceiling height: 7'-6" 301.1 1003.5 Exception 1: A single step (under 7") allowed at exterior doors in R-2 that are not required to be 402.1.1 Element: 1004.1.1 Occupancy Load for Residential: 200 gross at 5,236 SF is 26 occupants Occupancy Load for Storage: 300 gross at 1,781 SF is 5 occupants 1005.3 Door swing shall not reduce the required egress width more than half 1006.1 Stair must be illuminated at all times 1007.3 Sprinkler precludes need for wider stair or area of refuge 1008.1.1 Min Door size: 32" clear (36" door) 1008.1.5 Same floor elevation on either side of doors 1008.1.6Landing not less than width of door 1008.1.848" plus door swing between doors in succession 1009.1 Min stair width 36" (for occ. less than 50) 1009.2 Min head clearance 80" (6'-8") 1009.4 7" rise max, and 11" run min 1009.5 Landing width no more than stair width 1009.6 Stair construction can be of any material permitted by construction type 1012.2 Handrails between 34"-38" 1012.6 Railing extensions must be 12" at top of stairs and 11" at bottom. 1013.2 Min Guard Height: 42" 1014.3 NFPA 101 Table A7.6 Sprinkled Apartments common Path Limit: 50' NFPA 101 30.2.5.3.2: "Travel within a dwelling unit shall not be included when determining the common path of travel 1015.1 One exit is permitting from dwelling units at occupant load for individual units is under 20 and building is sprinkled 13R. 1016.1 Exit Access travel Distance: 250' (for sprinkled 13R R-2) 1018.2 Corridor Min Width: 36" (for occ under 50) 1021.2 Three-story R-2 building is permitted to have one exit if under 4-units per floors, under 50' travel distance to exit, sprinkled 13R, and provided with emergency escape openings. Basement S-1 can have one exit is 29 occupants and 100 feet travel distance 1022.1 2-hour exit enclosure required when connecting 4-stories Stairway from basement not enclosed. Under 10 occupants and not open to story above 1022.8 Floor identification signs shall comply with this section 1023.2 Min exit passageway width: 36" for less than 50 occupants 1023.3 Exits passageway min rating: 1-hr (or rating of connected enclosure if greater: 2-hr) Constructed of fire barriers and horizontal assemblies. 1029.1 Sleeping rooms below the fourth story shall have emergency escape and rescue openings 1029.2 Min area: 5.7SF Min height: Min width: 1029.3 Max height about floor: 44" 1100 Chapter does not apply in the State of Maine Sound transmission between dwelling units Walls: STC-50 (45 field tested) Ceilings: IIC-50 (45 field tested) 2406.4 Safety Glazing: all swinging doors, fixed and sliding panels of sliding door assemblies, glazing in an individual fixed or operable panel adjacent to a door where the nearest exposed edge of the glazing is within a 24 inch arc of either vertical edge of the door in a closed position and where the 7.9 bottom exposed edge of the glazing is less than 60 inches above the walking surface, glazing with exposed area of an individual pane greater than 9 square feet, and glazing w/ exposed bottom edge less than 18 inches above floor.

49 min Ceiling R-Value 71 Wood Frame R-Value 20 min 32.6 Floor R-Value 30 min Slab R-Value 10 min 10 NFPA 10 Each floor shall have a single (2) unit Class A Fire Extinguisher NFPA 101 3.3.32.5 New Building Residential Occupancy - Apartment Building (Chapter 30) Storage (Chapter 42) 6.1.14.4.1 Required Separation - 2hr between Apt Bldg & Storage 6.1.14.4.3 1 hour separation required in sprinkled building Ordinary Hazard Contents Stairs connecting four or more stories shall have a minimum of 2 hour rating 7.1.5.1 Min headroom: 7'-6" Cross Slope limited to 1:48 7.1.6.3 7.2.1.2.3.2 Egress door min clear width: 32" Door swing and force to open shall comply with this section Door locks, latches and alarms shall comply with this section 7.2.2.2.1.1 Max riser height: 7" Min Tread depth: 11" Min headroom: 6'-8" 7.2.2.2.1.2 Min stair width: 36" (for occupancy under 50) 7.2.2.3.2.3 Min landing depth: stair width 7.2.2.4.4.1 Handrail height: 36" 7.2.2.4.4.6 Handrail shape: 1 ½" circular cross section 7.2.2.4.4.9 Handrails shall return to wall or newel post 7.2.2.4.4.10 Handrails shall extend 12" at top of stair and one tread length at bottom 7.2.2.4.5.2 Min guard height: 42" 7.2.2.4.5.3 Open guards shall not allow the passage of a 4" sphere 7.2.2.5.4 Stairway identification shall comply with this section. Stair discharge shall have a 2-hr fire resistance rating. 7.2.12.1.1 Sprinkler precludes need for area of refuge in stair. 7.3.1.2 Occupancy Load 26 occupants 200 gross at 5,236sf is Residential Apartment: Storage: Total: 26 occupants 0.3 Occ. per in. for Stairs 7.3.4 Min Egress width: 36" 7.4.1.1 See 30.2.4.4 and 42.2.41 Egress Illumination shall be in accordance with this section. Emergency Lighting shall be in accordance with this section. Marking for means of egress shall comply with this section. No minimum construction requirements 30.2.1.1 Means of Egress shall comply with Chapter 7 and Chapter 30 30.2.4.4 Single stair permitted from building given 4 stories Less than 4 units/floor Two exits from basement No distance from unit door to stair 2-hr rated stair Self-closing doors No corridors 1 hr rating between units 30.2.5 Common Path Limit: 50' 30.2.5.4.2 Dead-End Limit: 30.2.6.2 Max Travel Distance within unit (sprinkled): 30.2.6.3.2 Max Travel Distance from unit door to exit (sprinkled): Fire detection and alarm system shall comply with this section. 30.3.4.5 Smoke alarms shall be installed: In every sleeping area Outside every sleeping area At least one on each level 30.3.5.2 Sprinkler system NFPA 13R permitted for four or fewer stories. 30.3.6.1.2 Corridor walls (sprinkled): ½ hour 30.3.7.2 Dwelling unit separation (sprinkled): ½ hour No minimum construction requirements 42.2.4.1 Single means of egress allowed within common path of travel limit. Dead End Corridor: 100' Common Path of Travel: 100' Maximum Travel Distance: 400'

Storage area walls and ceilings shall be Class A, Class V or Class C

Climate Zone 6A

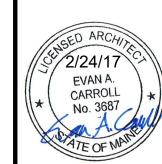
Fenestration U-Factor

Required: Provided:

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